KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

1057914

Form ACO-1
June 2009
Form Must Be Typed
Form must be Signed
All blanks must be Filled

WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # 3842
Name: Larson Engineering, Inc. dba Larson Operating Company
Address 1: 562 W STATE RD 4
Address 2:
City: OLMITZ State: KS Zip: 67564 + 8561
Contact Person: Thomas Larson
Phone: (620) 653-7368
CONTRACTOR: License # 33935
Name: H. D. Drilling, LLC
Wellsite Geologist: Richard S Davis Jr
Purchaser:

Designate Type of Completion:

- [x] New Well
- [ ] Re-Entry
- [ ] Workover

- [ ] Oil
- [ ] WSW
- [ ] SWD
- [ ] SIOW
- [ ] Gas
- [x] D&A
- [ ] ENHR
- [ ] SIGW
- [ ] OG
- [ ] GSW
- [ ] Temp. Abd.
- [ ] CM *(Coal Bed Methane)*
- [ ] Cathodic
- [ ] Other *(Core, Expl., etc.)*:

If Workover/Re-entry: Old Well Info as follows:

Operator:
Well Name:
Original Comp. Date: Original Total Depth:

- [ ] Deepening
- [ ] Re-perf.
- [ ] Conv. to ENHR
- [ ] Conv. to SWD
- [ ] Conv. to GSW
- [ ] Plug Back: Plug Back Total Depth
- [ ] Commingled Permit #:
- [ ] Dual Completion Permit #:
- [ ] SWD Permit #:
- [ ] ENHR Permit #:
- [ ] GSW Permit #:

2/26/2011	3/11/2011	3/11/2011
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 15-101-22279-00-00
Spot Description:
NE - NW - SW - NW Sec. 17 Twp. 19 S. R. 29 [ ] East [x] West
1617 Feet from [x] North / [ ] South Line of Section
586 Feet from [ ] East / [x] West Line of Section
Footages Calculated from Nearest Outside Section Corner:
[ ] NE [x] NW [ ] SE [ ] SW
County: Lane
Lease Name: Kim Well #: 1-17
Field Name:
Producing Formation: none
Elevation: Ground: 2849 Kelly Bushing: 2856
Total Depth: 4682 Plug Back Total Depth:
Amount of Surface Pipe Set and Cemented at: 261 Feet
Multiple Stage Cementing Collar Used? [ ] Yes [x] No
If yes, show depth set: Feet
If Alternate II completion, cement circulated from:
feet depth to: w/ sx cmt.

Drilling Fluid Management Plan
(Data must be collected from the Reserve Pit)

Chloride content: 8000 ppm Fluid volume: 1000 bbls
Dewatering method used: Evaporated
Location of fluid disposal if hauled offsite:
Operator Name:
Lease Name: License #:
Quarter Sec. Twp. S. R. [ ] East [ ] West
County: Permit #:

AFFIDAVIT

I am the affiant and I hereby certify that all requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Submitted Electronically

KCC Office Use ONLY

- [x] **Letter of Confidentiality Received**
  Date: 06/23/2011
- [x] **Confidential Release Date:** 06/22/2013
- [x] **Wireline Log Received**
- [x] **Geologist Report Received**
- [ ] **UIC Distribution**

ALT [ ] I [x] II [ ] III **Approved by:** NAOMI JAMES **Date:** 06/23/2011

Side Two

1057914

Operator Name: Larson Engineering, Inc. dba Larson Operating Company Lease Name: Kim Well #: 1-17

Sec. 17 Twp. 19 S. R. 29 ☐ East ☑ West County: Lane

INSTRUCTIONS: Show important tops and base of formations penetrated. Detail all cores. Report all final copies of drill stems tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed. Attach complete copy of all Electric Wire-line Logs surveyed. Attach final geological well site report.

Drill Stem Tests Taken ☑ Yes ☐ No
(Attach Additional Sheets)

Samples Sent to Geological Survey ☐ Yes ☑ No

Cores Taken ☐ Yes ☑ No
Electric Log Run ☑ Yes ☐ No
Electric Log Submitted Electronically ☑ Yes ☐ No
(If no, Submit Copy)

List All E. Logs Run:

Dual Induction
Dual Comp Porosity
Microresistivity

☑ Log Formation (Top), Depth and Datum ☐ Sample

Name	Top	Datum
Attached	Attached	Attached

CASING RECORD ☐ New ☑ Used
Report all strings set-conductor, surface, intermediate, production, etc.

Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives
Surface	12.25	8.625	20	261	Class A	175	2% fel, 3% CC

ADDITIONAL CEMENTING / SQUEEZE RECORD

Purpose:
☐ Perforate
☐ Protect Casing
☐ Plug Back TD
☐ Plug Off Zone

Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
-			
-			

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record *(Amount and Kind of Material Used)*	Depth

TUBING RECORD: Size: Set At: Packer At: Liner Run: ☐ Yes ☐ No

Date of First, Resumed Production, SWD or ENHR. Producing Method: ☐ Flowing ☐ Pumping ☐ Gas Lift ☐ Other *(Explain)*

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

DISPOSITION OF GAS:
☐ Vented ☐ Sold ☐ Used on Lease
(If vented, Submit ACO-18.)

METHOD OF COMPLETION:
☐ Open Hole ☐ Perf. ☐ Dually Comp. *(Submit ACO-5)* ☐ Commingled *(Submit ACO-4)*
☑ Other *(Specify)* D & A

PRODUCTION INTERVAL:

Mail to: KCC - Conservation Division, 130 S. Market - Room 2078, Wichita, Kansas 67202

Form	ACO1 - Well Completion
Operator	Larson Engineering, Inc. dba Larson Operating Company
Well Name	Kim 1-17
Doc ID	1057914

Tops

Name	Top	Datum
Anhydrite	2180	+676
Base Anhydrite	2199	+657
Heebner	3927	-1071
Lansing	3970	-1114
Stark	4259	-1403
Pawnee	4452	-1596
Cherokee Sh	4521	-1665
Mississippi	4598	-1742

DRILL STEM TEST REPORT

Larson Engineering

562 West State Rd 4
Olmitz KS 67564

ATTN: Steve Davis

Kim 1-17

17/19/29/Lane Co KS

Job Ticket: 040693 **DST#: 1**

Test Start: 2011.03.03 @ 23:26:15

GENERAL INFORMATION:

Formation: **H**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 02:00:30
Time Test Ended: 06:12:00

Test Type: Conventional Bottom Hole
Tester: Mike Roberts
Unit No: 48

Interval: 4152.00 ft (KB) To 4188.00 ft (KB) (TVD)
Total Depth: 4188.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

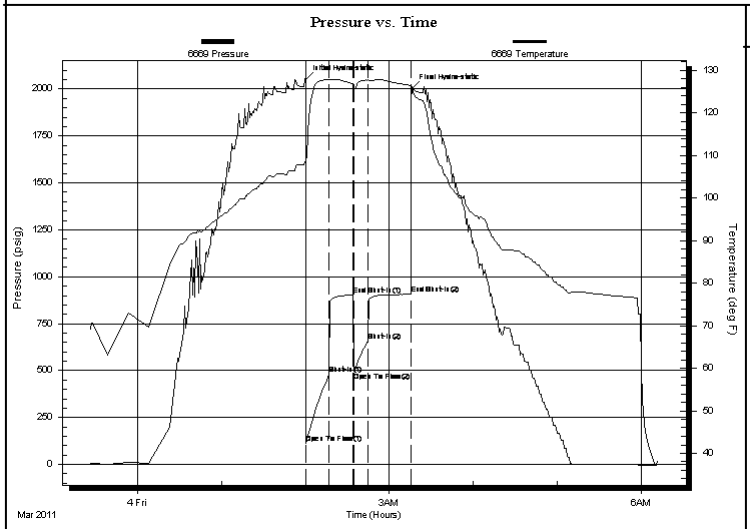
Reference Elevations: 2854.00 ft (KB)
2849.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 6669 **Outside**

Press@RunDepth: 657.95 psig @ 4183.00 ft (KB)
Start Date: 2011.03.03 End Date: 2011.03.04
Start Time: 23:26:15 End Time: 06:12:00

Capacity: 8000.00 psig
Last Calib.: 2011.03.04
Time On Btm: 2011.03.04 @ 02:00:15
Time Off Btm: 2011.03.04 @ 03:16:15

TEST COMMENT: IF:BOB in 2 min.
IS:No return blow
FF:BOB in 1 min.
FS:No return blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2050.99	108.77	Initial Hydro-static
1	115.13	108.82	Open To Flow (1)
17	481.76	127.82	Shut-In(1)
34	903.20	126.79	End Shut-In(1)
35	493.94	126.24	Open To Flow (2)
45	657.95	127.74	Shut-In(2)
76	906.13	126.50	End Shut-In(2)
76	2001.28	126.26	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
1952.00	sw 100%sw	26.34

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)

DRILL STEM TEST REPORT

FLUID SUMMARY

Larson Engineering

562 West State Rd 4
Olmitz KS 67564

ATTN: Steve Davis

Kim 1-17

17/19/29/Lane Co KS

Job Ticket: 040693 **DST#: 1**

Test Start: 2011.03.03 @ 23:26:15

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	0 deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	19000 ppm
Viscosity:	49.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	6.78 in³	Gas Cushion Type:			
Resistivity:	0.00 ohm.m	Gas Cushion Pressure:	psig		
Salinity:	1400.00 ppm				
Filter Cake:	1.00 inches				

Recovery Information

Recovery Table

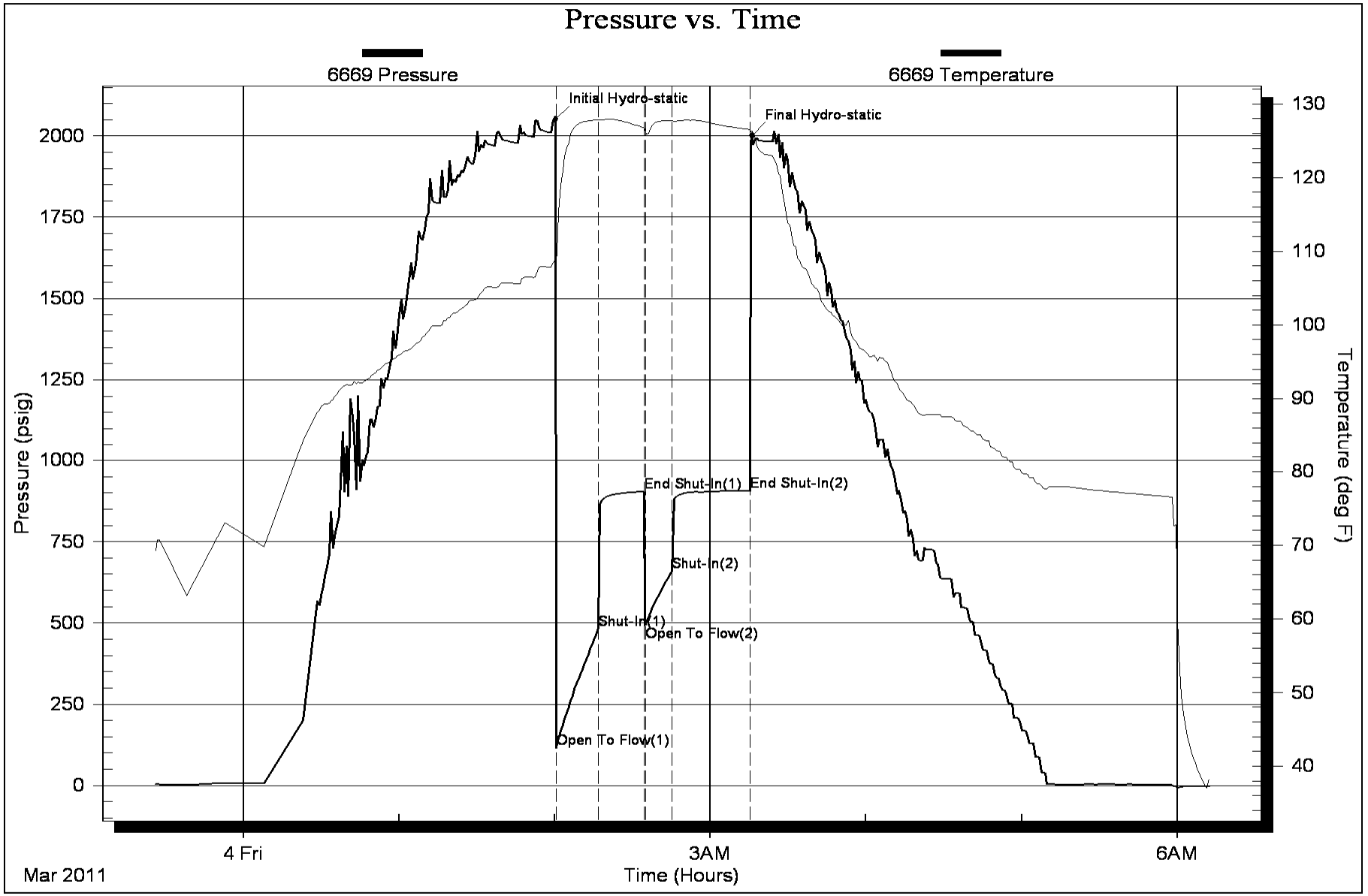
Length ft	Description	Volume bbl
1952.00	sw 100%sw	26.343

Total Length: 1952.00 ft Total Volume: 26.343 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:

Laboratory Name: Laboratory Location:

Recovery Comments: RW= .369 @ .390 degrees=19,000 ppm


Pressure vs. Time
6669 Pressure
6669 Temperature
Initial Hydro-static
Final Hydro-static
End Shut-In(1)
End Shut-In(2)
Shut-In(2)
Shut-In(1)
Open To Flow(2)
Open To Flow(1)
Pressure (psig)
Temperature (deg F)
2000
1750
1500
1250
1000
750
500
250
0
130
120
110
100
90
80
70
60
50
40
4 Fri
3AM
6AM
Mar 2011
Time (Hours)

DRILL STEM TEST REPORT

Larson Engineering

562 West State Rd 4
Olmitz KS 67564

ATTN: Steve Davis

Kim 1-17

17/19/29/Lane Co KS

Job Ticket: 040694 **DST#: 2**

Test Start: 2011.03.04 @ 15:20:15

GENERAL INFORMATION:

Formation: **I**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 17:08:15
Time Test Ended: 21:10:15

Test Type: Conventional Bottom Hole
Tester: Mike Roberts
Unit No: 48

Interval: 4197.00 ft (KB) To 4222.00 ft (KB) (TVD)
Total Depth: 4222.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

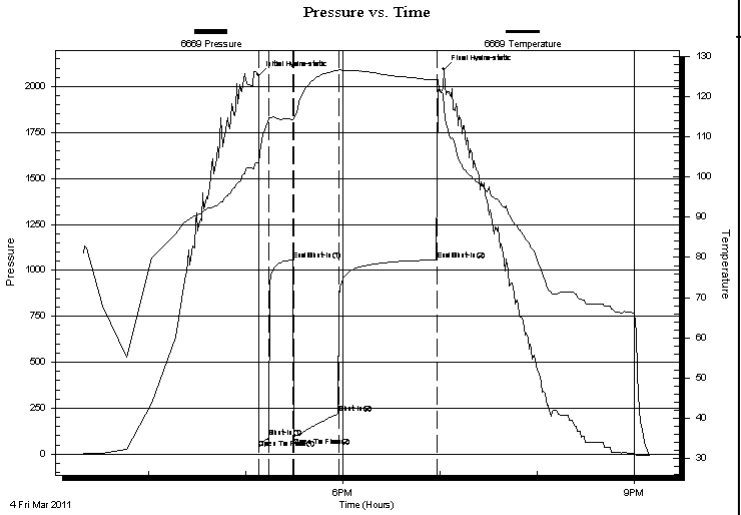
Reference Elevations: 2854.00 ft (KB)
2849.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 6669 **Outside**

Press@RunDepth: 220.96 psig @ 4228.00 ft (KB)
Start Date: 2011.03.04 End Date: 2011.03.04
Start Time: 15:20:15 End Time: 21:10:15

Capacity: 8000.00 psig
Last Calib.: 2011.03.04
Time On Btm: 2011.03.04 @ 17:08:00
Time Off Btm: 2011.03.04 @ 19:02:15

TEST COMMENT: IF: Built to 1 1/2" blow
IS: No return blow
FF: Built to w eak surface bow
FS: No return blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2060.95	103.44	Initial Hydro-static
1	31.29	103.04	Open To Flow (1)
7	89.48	114.64	Shut-In(1)
22	1057.96	114.29	End Shut-In(1)
22	93.06	114.50	Open To Flow (2)
50	220.96	126.60	Shut-In(2)
110	1057.39	124.12	End Shut-In(2)
115	2093.31	117.13	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
244.00	sw 100%	2.38
216.00	ocw m 10%o 40%w 50%m	3.03
5.00	Free oil	0.07

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)

DRILL STEM TEST REPORT

FLUID SUMMARY

Larson Engineering

562 West State Rd 4
Olmitz KS 67564

ATTN: Steve Davis

Kim 1-17

17/19/29/Lane Co KS

Job Ticket: 040694 **DST#: 2**

Test Start: 2011.03.04 @ 15:20:15

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	0 deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	20000 ppm
Viscosity:	47.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	7.58 in³	Gas Cushion Type:			
Resistivity:	0.00 ohm.m	Gas Cushion Pressure:	psig		
Salinity:	2100.00 ppm				
Filter Cake:	1.00 inches				

Recovery Information

Recovery Table

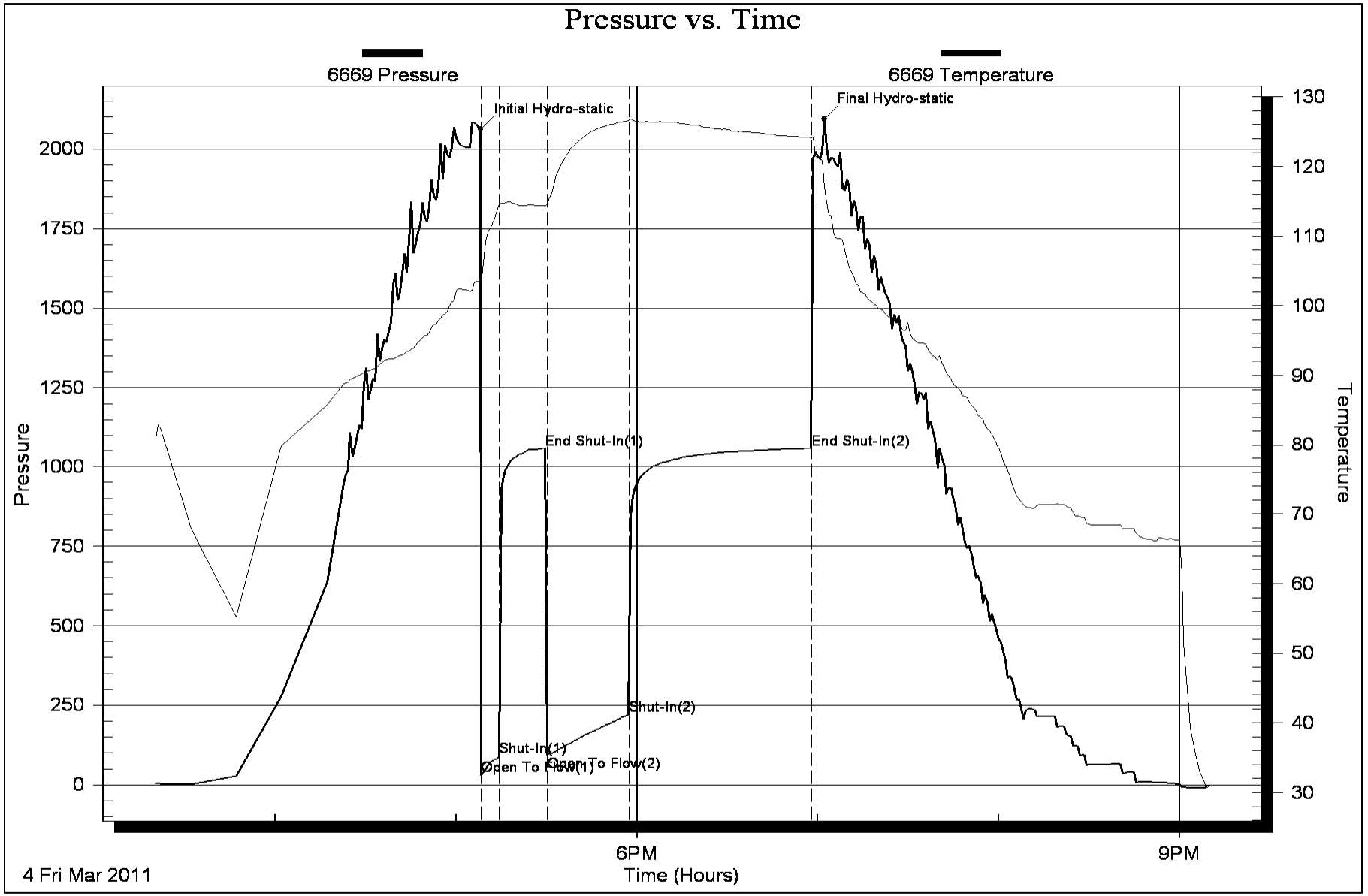
Length ft	Description	Volume bbl
244.00	sw 100%	2.384
216.00	ocw m 10%o 40%w 50%m	3.030
5.00	Free oil	0.070

Total Length: 465.00 ft Total Volume: 5.484 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:

Laboratory Name: Laboratory Location:

Recovery Comments: RW=.372@41 degrees=20,000 ppm


Pressure vs. Time
6669 Pressure
6669 Temperature
Initial Hydro-static
Final Hydro-static
End Shut-In(1)
End Shut-In(2)
Shut-In(1)
Shut-In(2)
Open To Flow(1)
Open To Flow(2)
Pressure
Temperature
2000
1750
1500
1250
1000
750
500
250
0
130
120
110
100
90
80
70
60
50
40
30
6PM
9PM
4 Fri Mar 2011
Time (Hours)

DRILL STEM TEST REPORT

Larson Engineering

562 West State Rd 4
Olmitz KS 67564

ATTN: Steve Davis

Kim 1-17

17/19/29/Lane Co KS

Job Ticket: 040695 **DST#: 3**

Test Start: 2011.03.05 @ 05:55:15

GENERAL INFORMATION:

Formation: **"I"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 08:06:00
Time Test Ended: 11:01:15

Test Type: Conventional Bottom Hole
Tester: Mike Roberts
Unit No: 48

Interval: 4228.00 ft (KB) To 4245.00 ft (KB) (TVD)
Total Depth: 4245.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

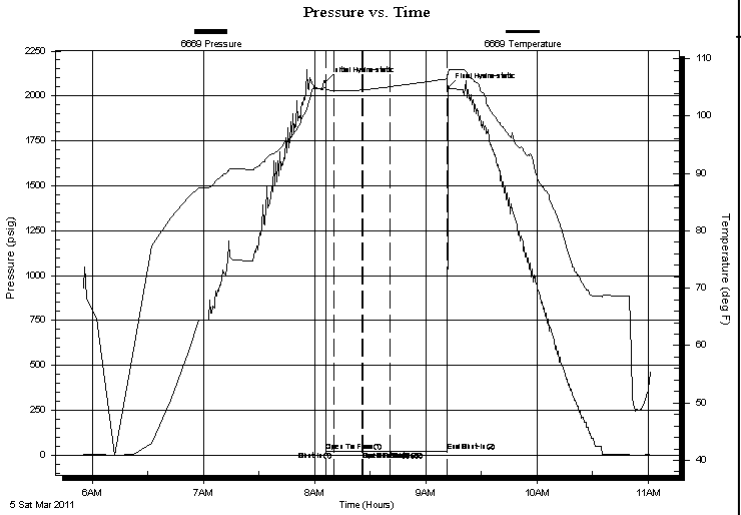
Reference Elevations: 2854.00 ft (KB)
2849.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 6669 **Outside**

Press@RunDepth: 18.80 psig @ 4259.00 ft (KB)
Start Date: 2011.03.05 End Date: 2011.03.05
Start Time: 05:55:15 End Time: 11:01:15

Capacity: 8000.00 psig
Last Calib.: 2011.03.05
Time On Btm: 2011.03.05 @ 08:05:45
Time Off Btm: 2011.03.05 @ 09:12:00

TEST COMMENT: IF:Built to a w eak surface blow
IS:No return blow
FF:Built to a w eak surface blow
FS:No return blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2077.79	104.98	Initial Hydro-static
1	18.40	104.32	Open To Flow (1)
5	18.20	104.45	Shut-In(1)
20	19.61	104.56	End Shut-In(1)
21	18.42	104.57	Open To Flow (2)
35	18.80	105.13	Shut-In(2)
66	20.50	106.47	End Shut-In(2)
67	2048.17	107.85	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	m 100% m	0.02

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)

DRILL STEM TEST REPORT

FLUID SUMMARY

Larson Engineering

562 West State Rd 4
Olmitz KS 67564

ATTN: Steve Davis

Kim 1-17

17/19/29/Lane Co KS

Job Ticket: 040695 **DST#: 3**

Test Start: 2011.03.05 @ 05:55:15

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	0 deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	0 ppm
Viscosity:	47.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	7.59 in³	Gas Cushion Type:			
Resistivity:	0.00 ohm.m	Gas Cushion Pressure:	psig		
Salinity:	2100.00 ppm				
Filter Cake:	1.00 inches				

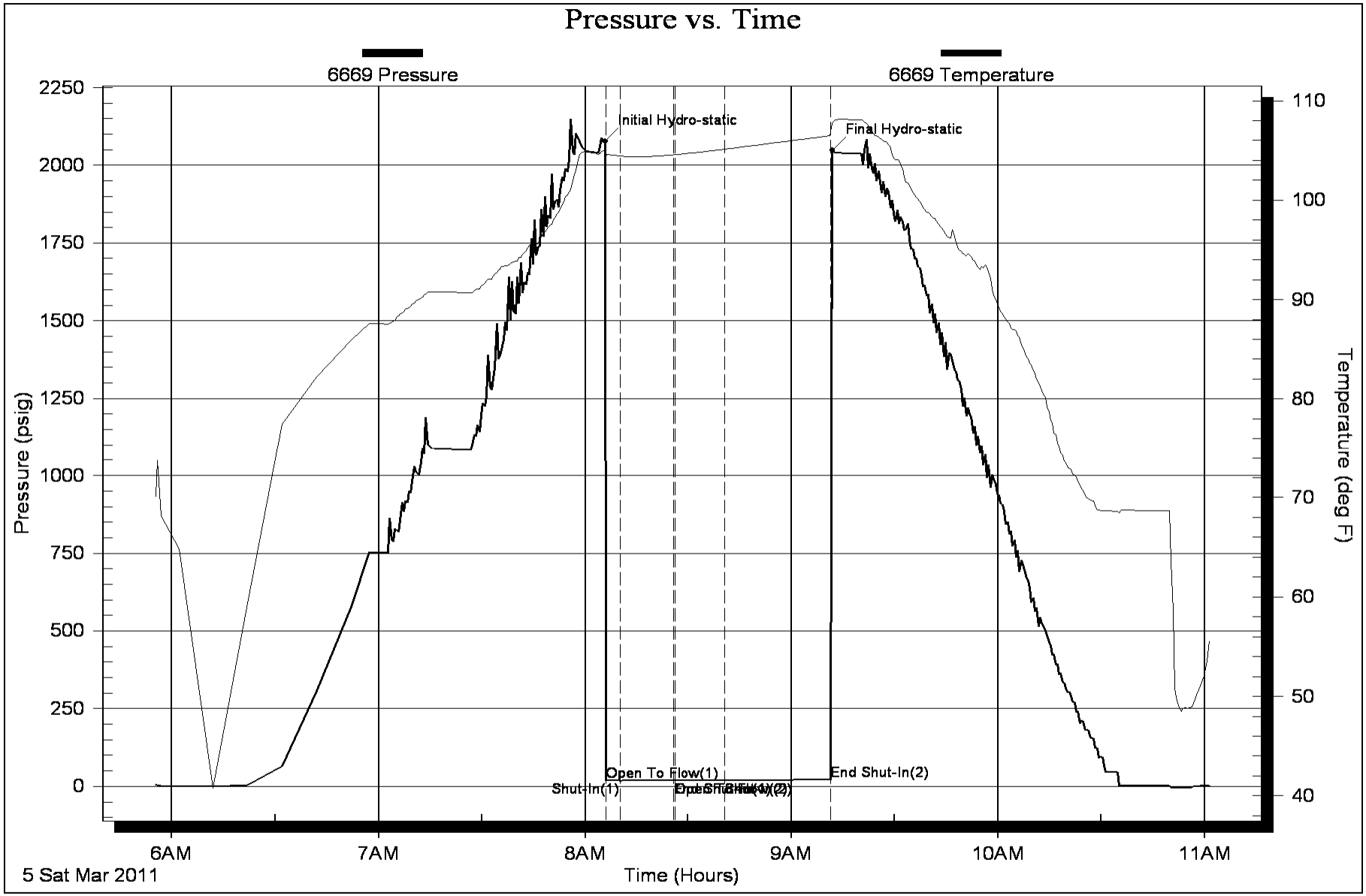
Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	m 100% m	0.025

Total Length: 5.00 ft Total Volume: 0.025 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:


Pressure vs. Time
6669 Pressure
6669 Temperature
Initial Hydro-static
Final Hydro-static
Open To Flow(1)
Shut-In(1)
End Shut-In(2)
Pressure (psig)
Temperature (deg F)
2250
2000
1750
1500
1250
1000
750
500
250
0
110
100
90
80
70
60
50
40
6AM
7AM
8AM
9AM
10AM
11AM
5 Sat Mar 2011
Time (Hours)

DRILL STEM TEST REPORT

Larson Engineering

562 West State Rd 4
Olmitz KS 67564

ATTN: Steve Davis

Kim 1-17

17/19/29/Lane Co KS

Job Ticket: 040696 **DST#: 4**

Test Start: 2011.03.05 @ 20:45:15

GENERAL INFORMATION:

Formation: **K**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 22:22:30
Time Test Ended: 02:21:30

Test Type: Conventional Bottom Hole
Tester: Mike Roberts
Unit No: 48

Interval: 4257.00 ft (KB) To 4285.00 ft (KB) (TVD)
Total Depth: 4285.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

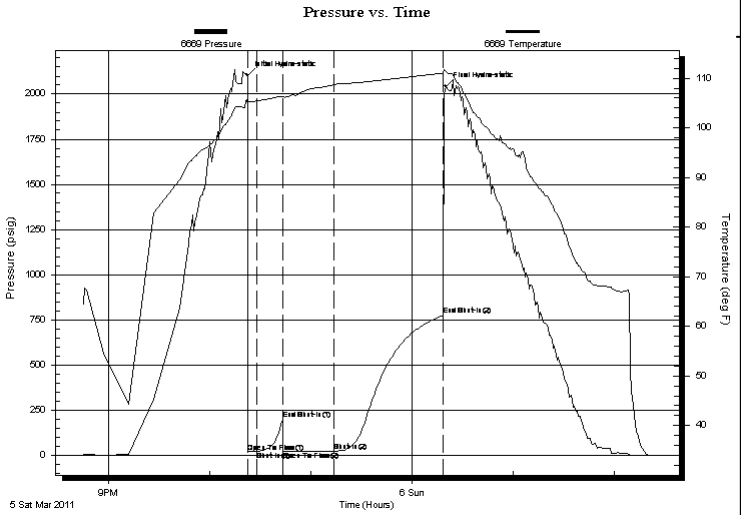
Reference Elevations: 2854.00 ft (KB)
2849.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 6669 **Outside**

Press@RunDepth: 19.22 psig @ 4280.00 ft (KB)
Start Date: 2011.03.05 End Date: 2011.03.06
Start Time: 20:45:15 End Time: 02:21:30

Capacity: 8000.00 psig
Last Calib.: 2011.03.06
Time On Btm: 2011.03.05 @ 22:22:15
Time Off Btm: 2011.03.06 @ 00:19:45

TEST COMMENT: IF:Built to 1/8" blow
IS:No return blow
FF:Built to w eak surface blow then died in 15 min
FS:No return blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2103.25	105.76	Initial Hydro-static
1	18.30	104.98	Open To Flow (1)
6	19.63	105.40	Shut-In(1)
21	196.19	106.36	End Shut-In(1)
21	19.60	106.27	Open To Flow (2)
52	19.22	108.71	Shut-In(2)
117	774.67	111.03	End Shut-In(2)
118	2043.68	111.31	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	m 100%m	0.02

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)

DRILL STEM TEST REPORT

FLUID SUMMARY

Larson Engineering

562 West State Rd 4
Olmitz KS 67564

ATTN: Steve Davis

Kim 1-17

17/19/29/Lane Co KS

Job Ticket: 040696 **DST#: 4**

Test Start: 2011.03.05 @ 20:45:15

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	0 deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	0 ppm
Viscosity:	49.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	7.59 in³	Gas Cushion Type:			
Resistivity:	0.00 ohm.m	Gas Cushion Pressure:	psig		
Salinity:	2100.00 ppm				
Filter Cake:	1.00 inches				

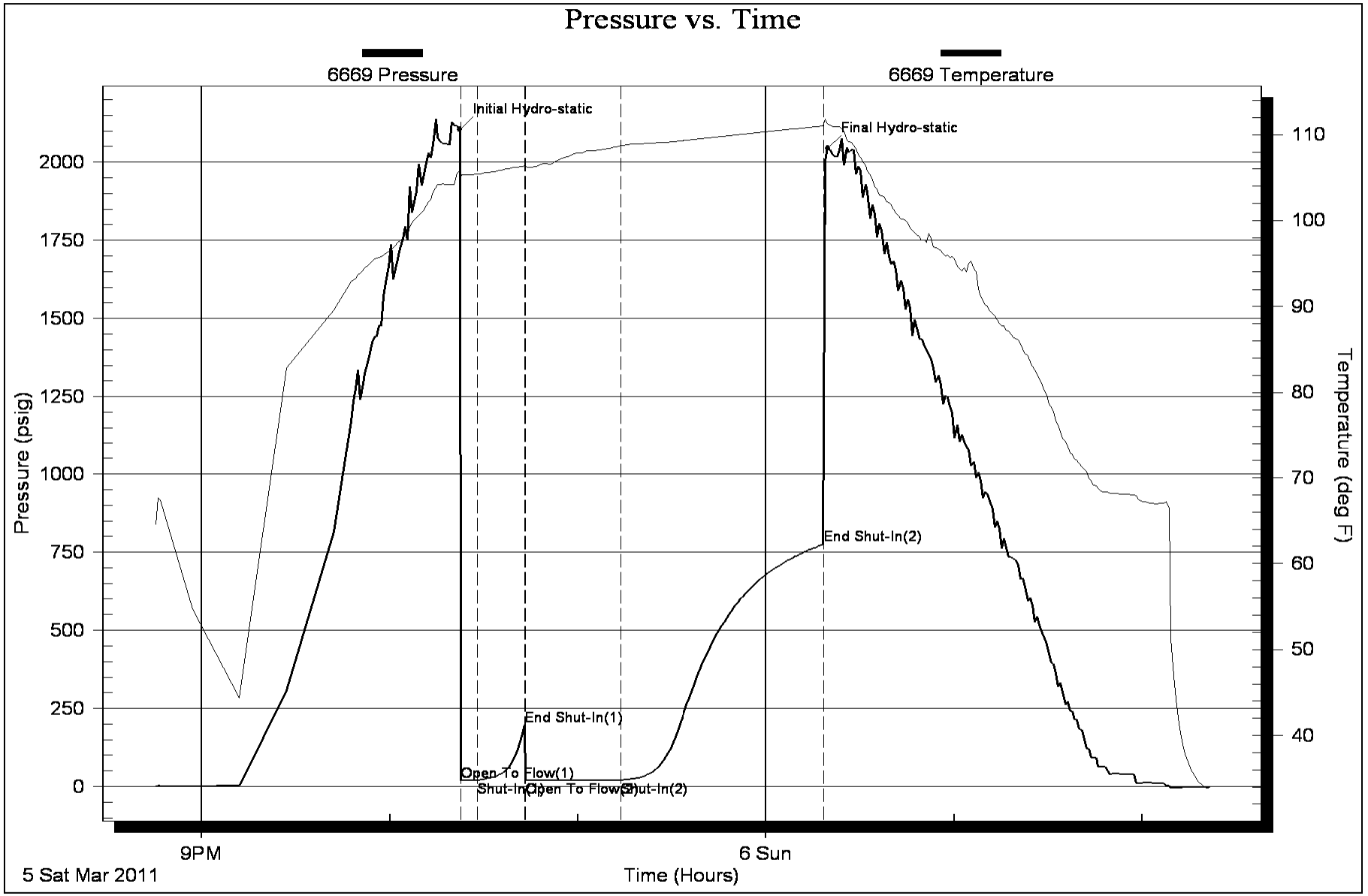
Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	m 100%m	0.025

Total Length: 5.00 ft Total Volume: 0.025 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:


Pressure vs. Time
6669 Pressure
6669 Temperature
Initial Hydro-static
Final Hydro-static
End Shut-In(2)
End Shut-In(1)
Open To Flow(1)
Shut-In(1)
Open To Flow(2)
Shut-In(2)
Pressure (psig)
Temperature (deg F)
2000
1750
1500
1250
1000
750
500
250
0
110
100
90
80
70
60
50
40
9PM
6 Sun
5 Sat Mar 2011
Time (Hours)

DRILL STEM TEST REPORT

Larson Engineering

562 West State Rd 4
Olmitz KS 67564

ATTN: Steve Davis

Kim 1-17

17/19/29/Lane Co KS

Job Ticket: 040697 **DST#: 5**

Test Start: 2011.03.06 @ 09:47:15

GENERAL INFORMATION:

Formation: **Middle Creek**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 11:18:00
Time Test Ended: 13:53:30

Test Type: Conventional Bottom Hole
Tester: Mike Roberts
Unit No: 48

Interval: 4291.00 ft (KB) To 4306.00 ft (KB) (TVD)
Total Depth: 4306.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

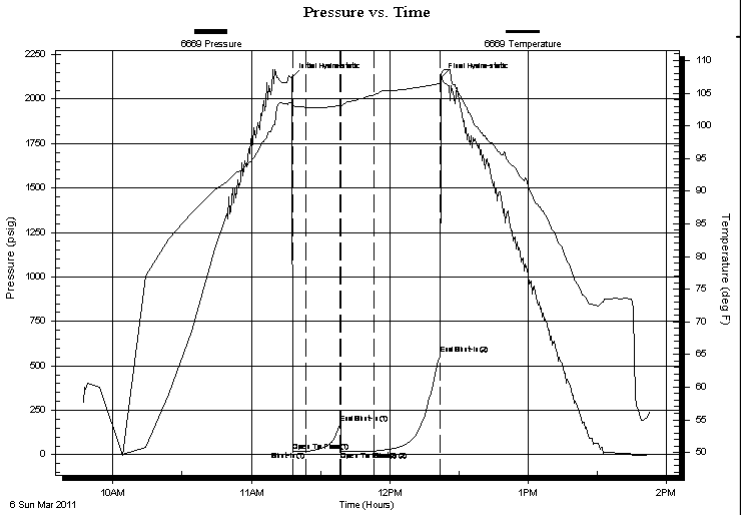
Reference Elevations: 2854.00 ft (KB)
2849.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 6669 **Outside**

Press@RunDepth: 19.90 psig @ 4322.00 ft (KB)
Start Date: 2011.03.06 End Date: 2011.03.06
Start Time: 09:47:15 End Time: 13:53:30

Capacity: 8000.00 psig
Last Calib.: 2011.03.06
Time On Btm: 2011.03.06 @ 11:17:45
Time Off Btm: 2011.03.06 @ 12:22:30

TEST COMMENT: IF:Weak surface blow
IS:No return blow
FF:No blow
FS:No return blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2119.01	103.55	Initial Hydro-static
1	19.93	103.03	Open To Flow (1)
6	19.14	102.84	Shut-In(1)
21	176.83	103.11	End Shut-In(1)
22	20.39	103.07	Open To Flow (2)
36	19.90	104.74	Shut-In(2)
65	564.46	106.50	End Shut-In(2)
65	2118.60	107.71	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	m 100 % m	0.02

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)

DRILL STEM TEST REPORT

FLUID SUMMARY

Larson Engineering

562 West State Rd 4
Olmitz KS 67564

ATTN: Steve Davis

Kim 1-17

17/19/29/Lane Co KS

Job Ticket: 040697 **DST#: 5**

Test Start: 2011.03.06 @ 09:47:15

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	0 deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	0 ppm
Viscosity:	49.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	6.40 in³	Gas Cushion Type:			
Resistivity:	0.00 ohm.m	Gas Cushion Pressure:	psig		
Salinity:	2100.00 ppm				
Filter Cake:	2.00 inches				

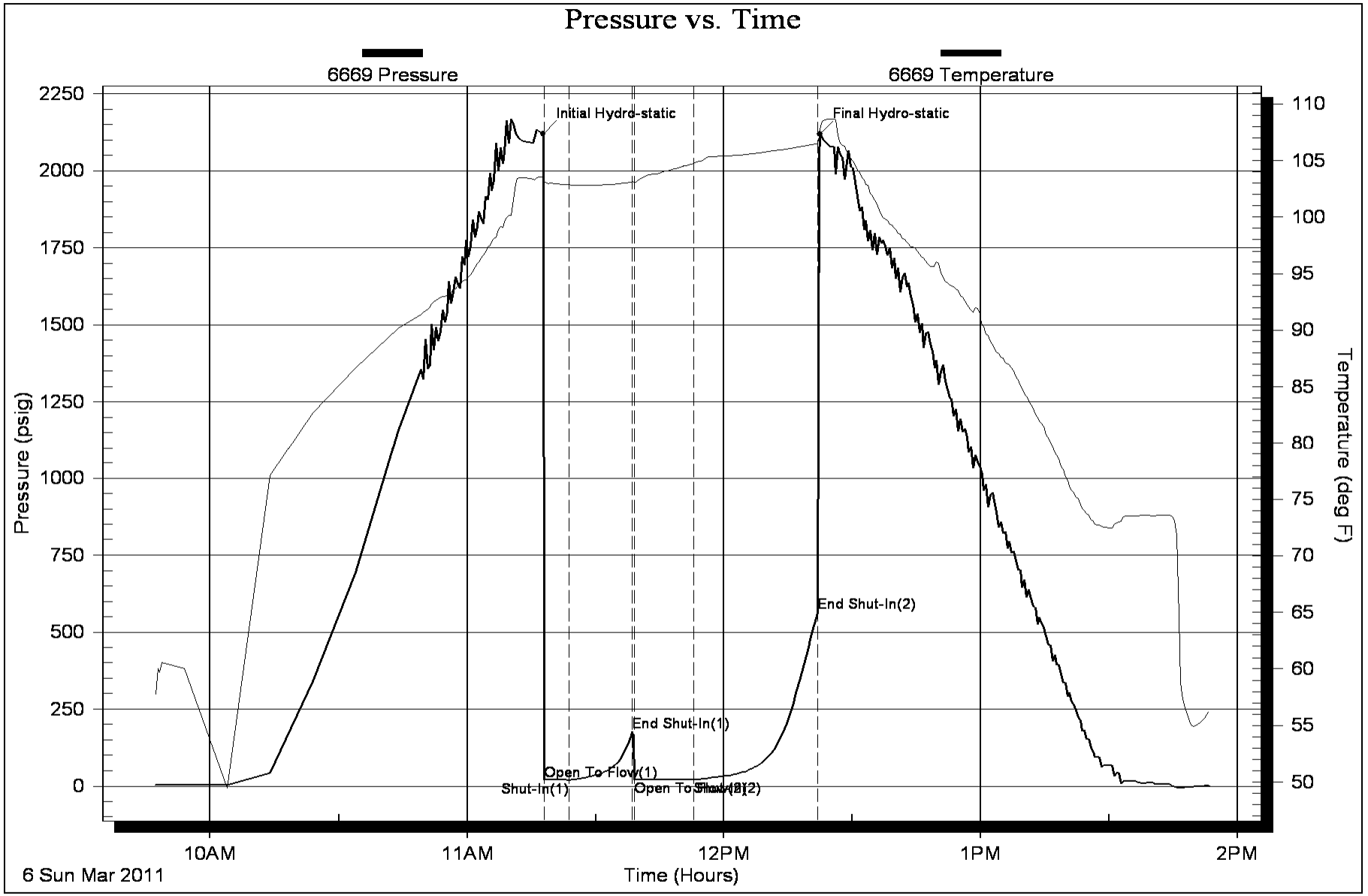
Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	m 100 % m	0.025

Total Length: 5.00 ft Total Volume: 0.025 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:


Pressure vs. Time
6669 Pressure
6669 Temperature
Initial Hydro-static
Final Hydro-static
End Shut-In(2)
End Shut-In(1)
Open To Flow(1)
Shut-In(1)
Open To Flow(2)
Pressure (psig)
Temperature (deg F)
2250
2000
1750
1500
1250
1000
750
500
250
0
110
105
100
95
90
85
80
75
70
65
60
55
50
10AM
11AM
12PM
1PM
2PM
6 Sun Mar 2011
Time (Hours)

DRILL STEM TEST REPORT

Larson Engineering

562 West State Rd 4
Olmitz KS 67564

ATTN: Steve Davis

Kim 1-17

17/19/29/Lane Co KS

Job Ticket: 040698 **DST#: 6**

Test Start: 2011.03.06 @ 21:30:15

GENERAL INFORMATION:

Formation: **L**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 23:34:15
Time Test Ended: 02:37:30

Test Type: Conventional Bottom Hole
Tester: Mike Roberts
Unit No: 48

Interval: 4292.00 ft (KB) To 4320.00 ft (KB) (TVD)
Total Depth: 4290.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

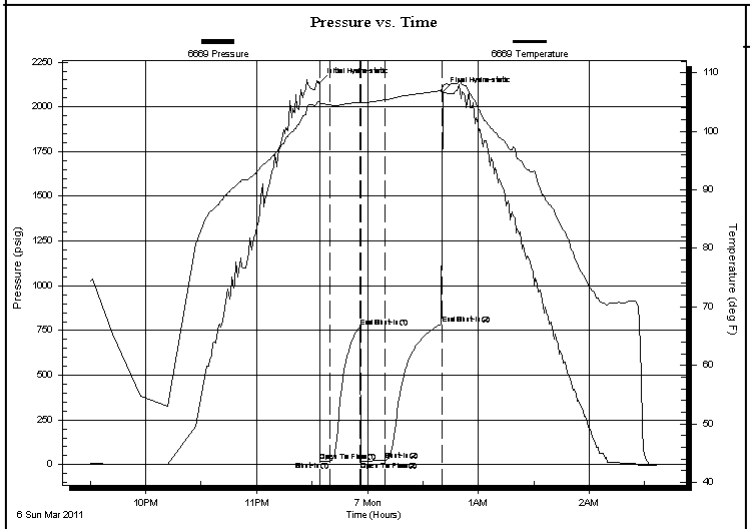
Reference Elevations: 2854.00 ft (KB)
2849.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 6669 **Outside**

Press@RunDepth: 21.86 psig @ 4315.00 ft (KB)
Start Date: 2011.03.06 End Date: 2011.03.07
Start Time: 21:30:15 End Time: 02:37:30

Capacity: 8000.00 psig
Last Calib.: 2011.03.07
Time On Btm: 2011.03.06 @ 23:34:00
Time Off Btm: 2011.03.07 @ 00:40:45

TEST COMMENT: IF:Weak surface blow
IS:No return blow
FF:No blow
FS:No return blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2133.78	105.03	Initial Hydro-static
1	21.24	104.61	Open To Flow (1)
6	20.31	104.54	Shut-In(1)
22	770.52	105.00	End Shut-In(1)
23	21.32	104.94	Open To Flow (2)
36	21.86	105.42	Shut-In(2)
67	787.63	106.98	End Shut-In(2)
67	2082.52	107.70	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	m 100% m	0.02

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)

DRILL STEM TEST REPORT

FLUID SUMMARY

Larson Engineering

562 West State Rd 4
Olmitz KS 67564

ATTN: Steve Davis

Kim 1-17

17/19/29/Lane Co KS

Job Ticket: 040698 **DST#: 6**

Test Start: 2011.03.06 @ 21:30:15

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	0 deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	0 ppm
Viscosity:	51.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	7.20 in³	Gas Cushion Type:			
Resistivity:	0.00 ohm.m	Gas Cushion Pressure:	psig		
Salinity:	2100.00 ppm				
Filter Cake:	2.00 inches				

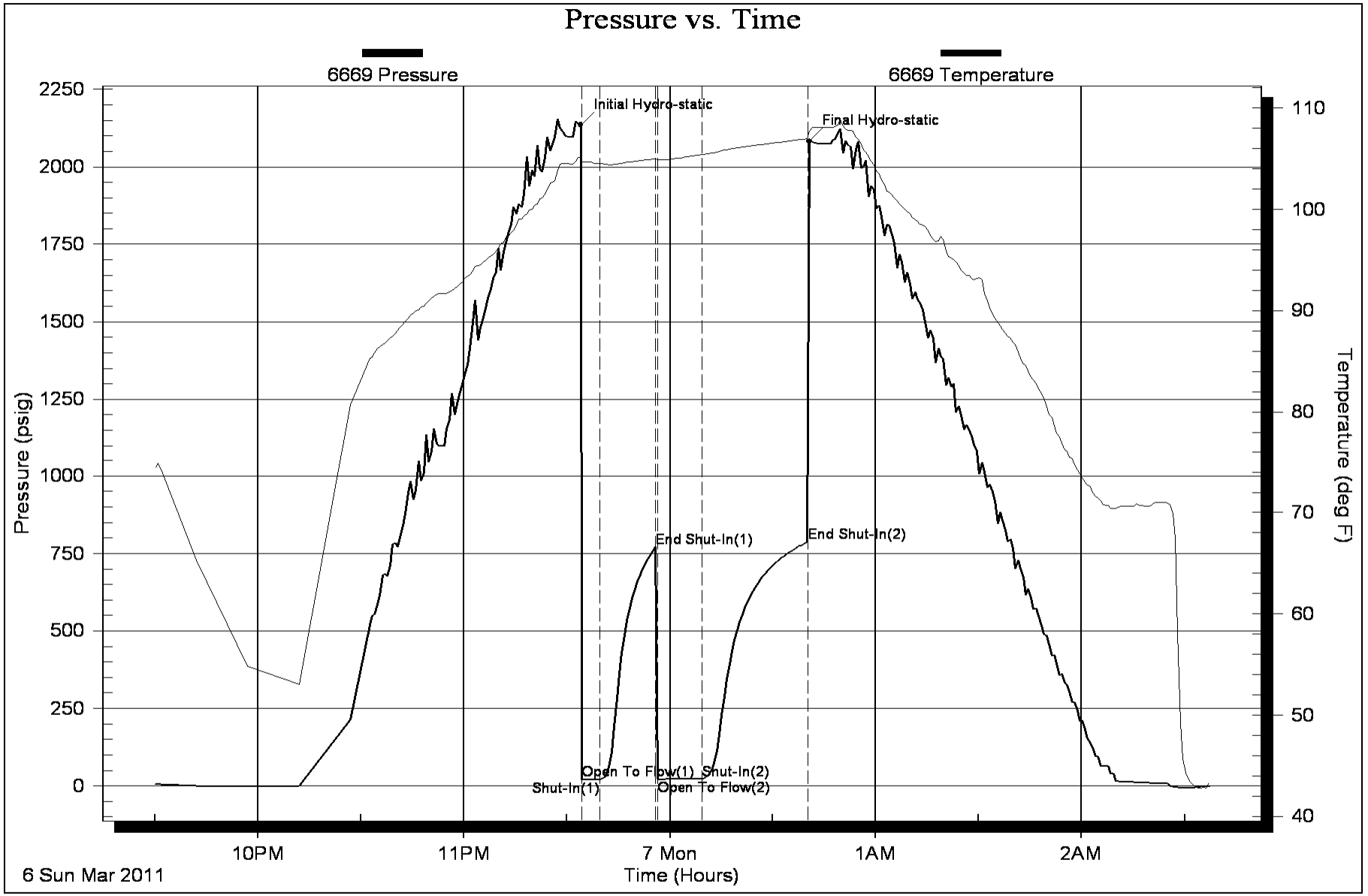
Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	m 100% m	0.025

Total Length: 5.00 ft Total Volume: 0.025 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:


Pressure vs. Time
6669 Pressure
6669 Temperature
Initial Hydro-static
Final Hydro-static
End Shut-In(1)
End Shut-In(2)
Open To Flow(1)
Shut-In(1)
Shut-In(2)
Open To Flow(2)
Pressure (psig)
Temperature (deg F)
2250
2000
1750
1500
1250
1000
750
500
250
0
110
100
90
80
70
60
50
40
10PM
11PM
7 Mon
1AM
2AM
6 Sun Mar 2011
Time (Hours)

DRILL STEM TEST REPORT

Larson Engineering

562 West State Rd 4
Olmitz KS 67564

ATTN: Steve Davis

Kim 1-17

17/19/29/Lane KS

Job Ticket: 040699 **DST#: 7**

Test Start: 2011.03.07 @ 19:07:15

GENERAL INFORMATION:

Formation: **Altamont**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 21:21:15
Time Test Ended: 01:00:45

Test Type: Conventional Bottom Hole
Tester: Mike Roberts
Unit No: 48

Interval: 4354.00 ft (KB) To 4410.00 ft (KB) (TVD)
Total Depth: 4410.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

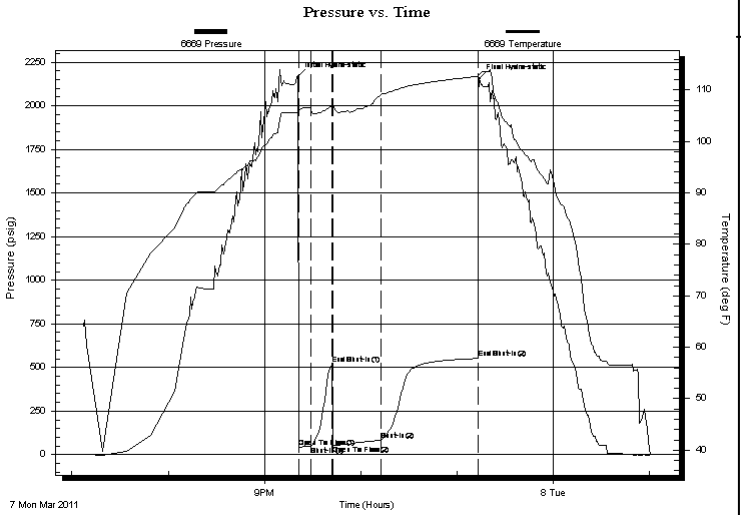
Reference Elevations: 2854.00 ft (KB)
2849.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 6669 **Outside**

Press@RunDepth: 83.24 psig @ 4405.00 ft (KB)
Start Date: 2011.03.07 End Date: 2011.03.08
Start Time: 19:07:15 End Time: 01:00:45

Capacity: 8000.00 psig
Last Calib.: 2011.03.08
Time On Btm: 2011.03.07 @ 21:21:00
Time Off Btm: 2011.03.07 @ 23:13:45

TEST COMMENT: IF:Built too 1" blow
IS:No return blow
FF:Built to 8" blow
FS:No return blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2165.45	105.70	Initial Hydro-static
1	40.87	105.00	Open To Flow (1)
8	49.46	106.39	Shut-In(1)
21	518.75	106.81	End Shut-In(1)
22	53.29	106.76	Open To Flow (2)
52	83.24	109.11	Shut-In(2)
112	551.96	112.66	End Shut-In(2)
113	2152.86	112.94	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
120.00	m w ith oil spots	0.64

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)

DRILL STEM TEST REPORT

FLUID SUMMARY

Larson Engineering

562 West State Rd 4
Olmitz KS 67564

ATTN: Steve Davis

Kim 1-17

17/19/29/Lane KS

Job Ticket: 040699 **DST#: 7**

Test Start: 2011.03.07 @ 19:07:15

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	ppm
Viscosity:	49.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	7.60 in³	Gas Cushion Type:			
Resistivity:	0.00 ohm.m	Gas Cushion Pressure:	psig		
Salinity:	2300.00 ppm				
Filter Cake:	2.00 inches				

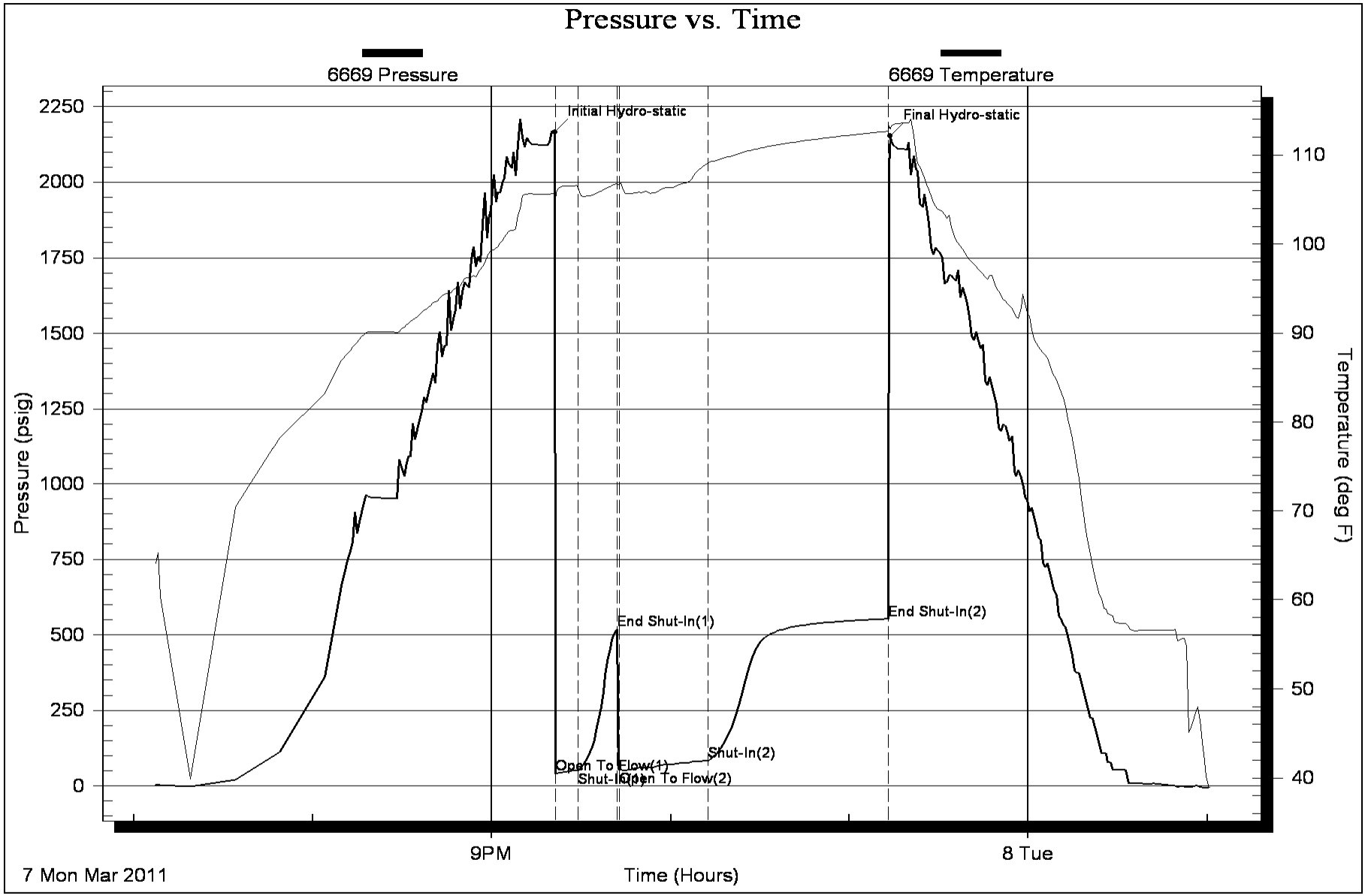
Recovery Information

Recovery Table

Length ft	Description	Volume bbl
120.00	m w ith oil spots	0.645

Total Length: 120.00 ft Total Volume: 0.645 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:


Pressure vs. Time
6669 Pressure
6669 Temperature
Initial Hydro-static
Final Hydro-static
End Shut-In(1)
End Shut-In(2)
Open To Flow(1)
Shut-In(1)
Open To Flow(2)
Shut-In(2)
Pressure (psig)
Temperature (deg F)
2250
2000
1750
1500
1250
1000
750
500
250
0
110
100
90
80
70
60
50
40
9PM
8 Tue
7 Mon Mar 2011
Time (Hours)

DRILL STEM TEST REPORT

Larson Engineering

562 West State Rd 4
Olmitz KS 67564

ATTN: Steve Davis

Kim 1-17

17/19/29/Lane Co KS

Job Ticket: 040700 **DST#: 8**

Test Start: 2011.03.08 @ 15:25:15

GENERAL INFORMATION:

Formation: **Altamont-Pawnee**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 17:24:00
Time Test Ended: 20:31:30

Test Type: Conventional Bottom Hole
Tester: Mike Roberts
Unit No: 48

Interval: 4400.00 ft (KB) To 4464.00 ft (KB) (TVD)
Total Depth: 4464.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

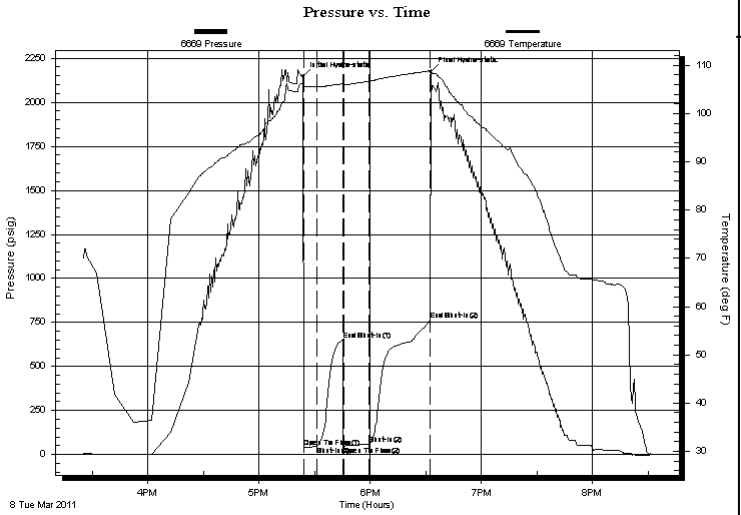
Reference Elevations: 2854.00 ft (KB)
2849.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 6669 **Outside**

Press@RunDepth: 59.29 psig @ 4459.00 ft (KB)
Start Date: 2011.03.08 End Date: 2011.03.08
Start Time: 15:25:15 End Time: 20:31:30

Capacity: 8000.00 psig
Last Calib.: 2011.03.08
Time On Btm: 2011.03.08 @ 17:23:45
Time Off Btm: 2011.03.08 @ 18:32:30

TEST COMMENT: IF:1/8" blow
IS:No return blow
FF:built to 1/2 blow in 5 min and stayed there
FS:No return blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2146.12	106.21	Initial Hydro-static
1	39.98	105.85	Open To Flow (1)
8	44.18	105.52	Shut-In(1)
22	649.58	106.15	End Shut-In(1)
22	47.95	105.98	Open To Flow (2)
36	59.29	106.73	Shut-In(2)
69	763.70	108.90	End Shut-In(2)
69	2172.58	109.16	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
70.00	ocm 40%o 60%m	0.34

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)

DRILL STEM TEST REPORT

FLUID SUMMARY

Larson Engineering

562 West State Rd 4
Olmitz KS 67564

ATTN: Steve Davis

Kim 1-17

17/19/29/Lane Co KS

Job Ticket: 040700 **DST#: 8**

Test Start: 2011.03.08 @ 15:25:15

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	0 deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	0 ppm
Viscosity:	49.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	7.59 in³	Gas Cushion Type:			
Resistivity:	0.00 ohm.m	Gas Cushion Pressure:	psig		
Salinity:	2300.00 ppm				
Filter Cake:	2.00 inches				

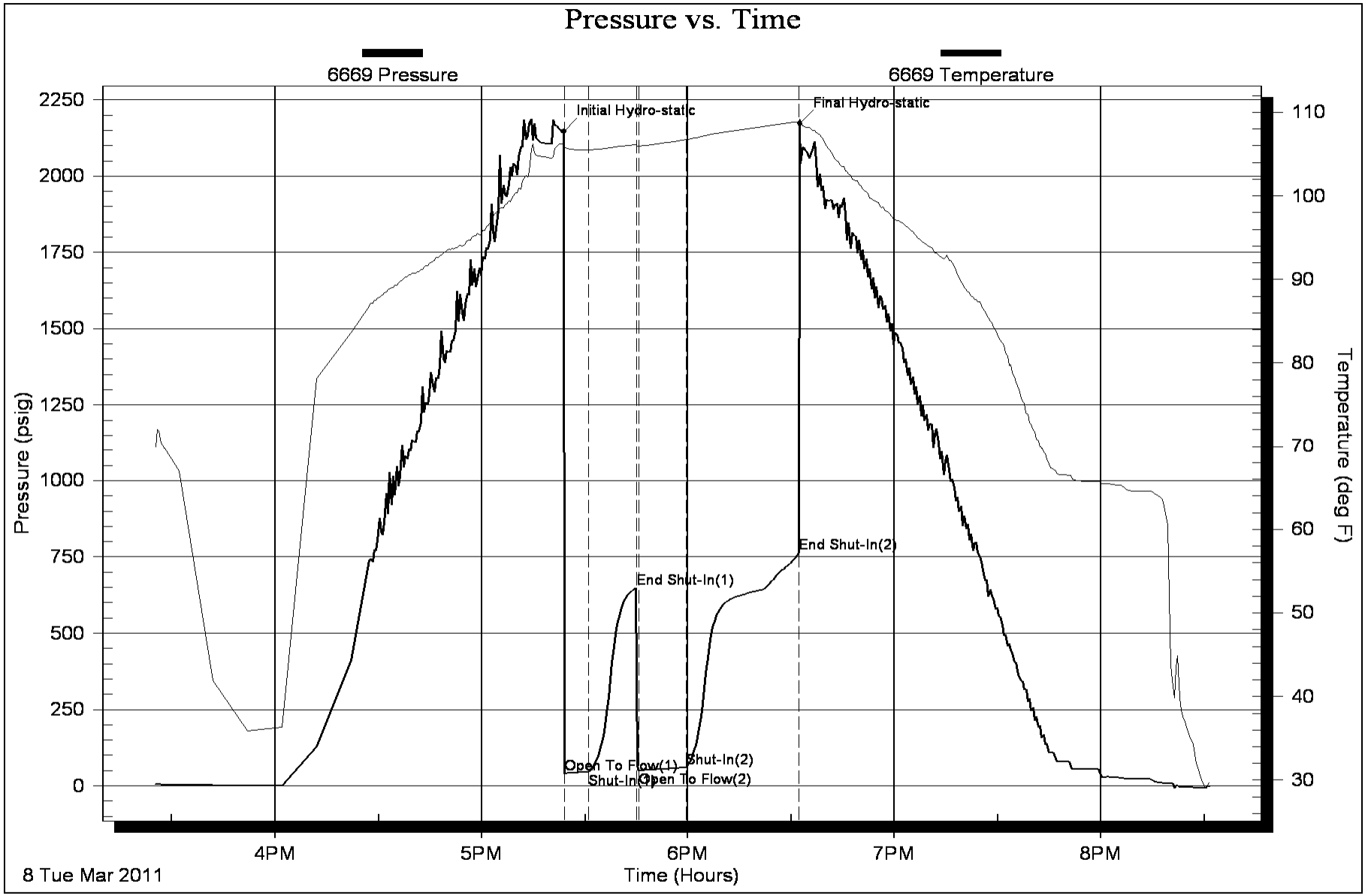
Recovery Information

Recovery Table

Length ft	Description	Volume bbl
70.00	ocm 40%o 60%m	0.344

Total Length: 70.00 ft Total Volume: 0.344 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:


Pressure vs. Time
6669 Pressure
6669 Temperature
Initial Hydro-static
Final Hydro-static
End Shut-In(1)
End Shut-In(2)
Open To Flow(1)
Shut-In(1)
Shut-In(2)
Open To Flow(2)
Pressure (psig)
Temperature (deg F)
Time (Hours)
8 Tue Mar 2011
2250
2000
1750
1500
1250
1000
750
500
250
0
110
100
90
80
70
60
50
40
30
4PM
5PM
6PM
7PM
8PM

DRILL STEM TEST REPORT

Larson Engineering

562 West State Rd 4
Olmitz KS 67564

ATTN: Steve Davis

Kim 1-17

17/19/29/Lane Co KS

Job Ticket: 42151 **DST#: 9**

Test Start: 2011.03.09 @ 13:12:15

GENERAL INFORMATION:

Formation: **Pawnee, MyRick Stati**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 15:12:15
Time Test Ended: 20:23:45

Test Type: Conventional Bottom Hole
Tester: Mike Roberts
Unit No: 48

Interval: 4462.00 ft (KB) To 4572.00 ft (KB) (TVD)
Total Depth: 4572.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

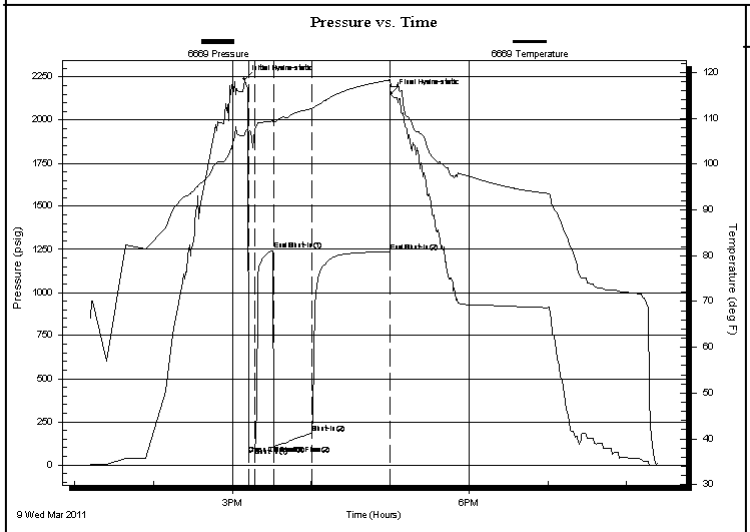
Reference Elevations: 2854.00 ft (KB)
2849.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 6669 **Outside**

Press@RunDepth: 184.74 psig @ 4567.00 ft (KB)
Start Date: 2011.03.09 End Date: 2011.03.09
Start Time: 13:12:15 End Time: 20:23:45

Capacity: 8000.00 psig
Last Calib.: 2011.03.09
Time On Btm: 2011.03.09 @ 15:09:15
Time Off Btm: 2011.03.09 @ 17:01:00

TEST COMMENT: IF:Built to 4" blow
IS:No return blow
FF:BOB in 10 min.
FS:No return blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2236.19	106.43	Initial Hydro-static
3	63.12	107.13	Open To Flow (1)
8	103.04	107.67	Shut-In(1)
22	1244.60	109.40	End Shut-In(1)
23	111.23	109.12	Open To Flow (2)
51	184.74	112.15	Shut-In(2)
111	1237.54	118.37	End Shut-In(2)
112	2153.97	116.88	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
306.00	gcom 10%g 30%o 60%m	3.25

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)

DRILL STEM TEST REPORT

FLUID SUMMARY

Larson Engineering

562 West State Rd 4
Olmitz KS 67564

ATTN: Steve Davis

Kim 1-17

17/19/29/Lane Co KS

Job Ticket: 42151 **DST#: 9**

Test Start: 2011.03.09 @ 13:12:15

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	0 deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	0 ppm
Viscosity:	53.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	7.19 in³	Gas Cushion Type:			
Resistivity:	0.00 ohm.m	Gas Cushion Pressure:	psig		
Salinity:	2100.00 ppm				
Filter Cake:	2.00 inches				

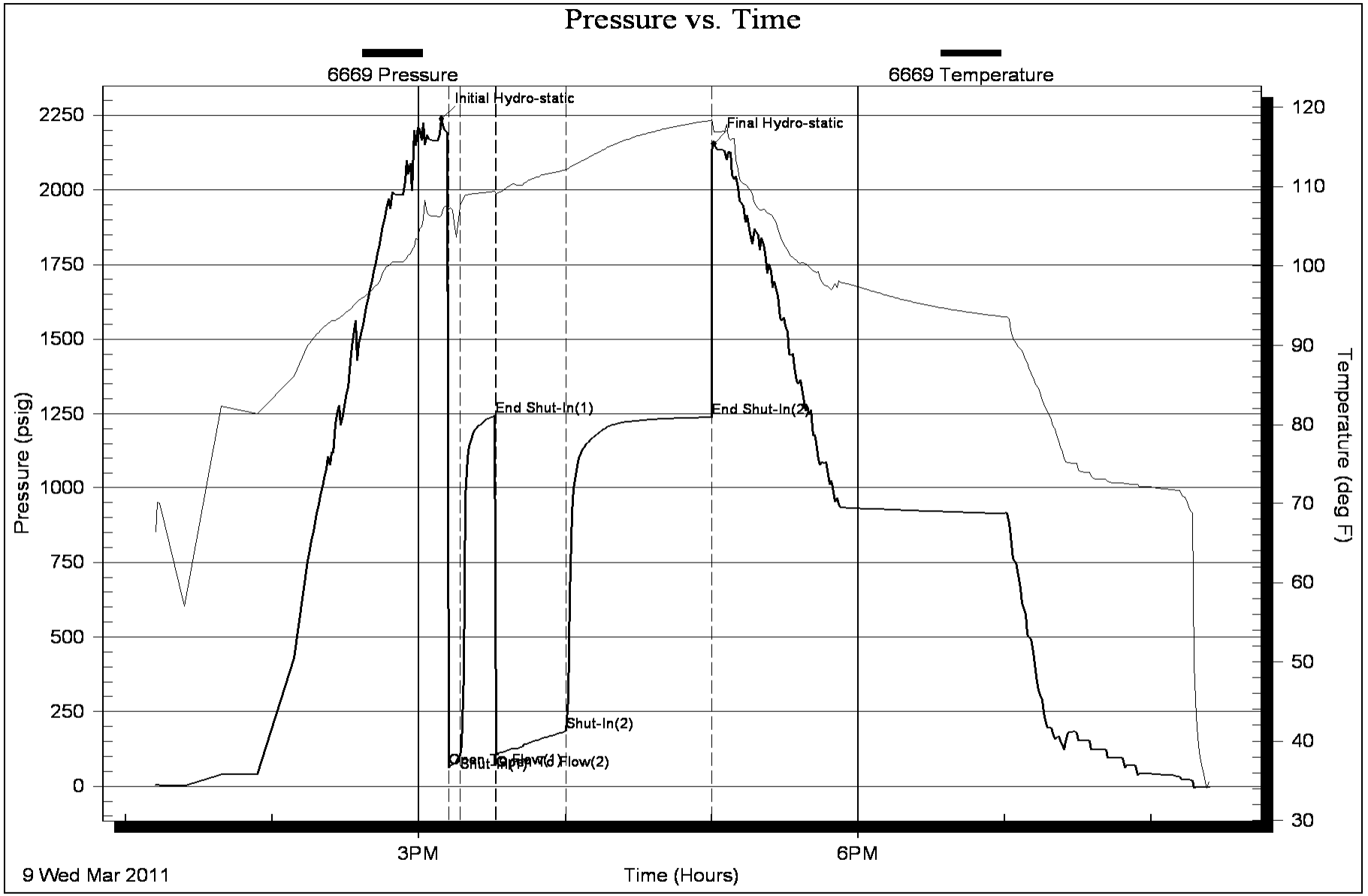
Recovery Information

Recovery Table

Length ft	Description	Volume bbl
306.00	gcom 10%g 30%o 60%m	3.254

Total Length: 306.00 ft Total Volume: 3.254 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:


Pressure vs. Time
6669 Pressure
6669 Temperature
Initial Hydro-static
Final Hydro-static
End Shut-In(1)
End Shut-In(2)
Shut-In(2)
Pressure (psig)
Temperature (deg F)
2250
2000
1750
1500
1250
1000
750
500
250
0
120
110
100
90
80
70
60
50
40
30
3PM
6PM
9 Wed Mar 2011
Time (Hours)

RICHARD S. (Steve) DAVIS JR.
Petroleum Geologist

212 N. Market Wichita, Kansas 67202 Phone (316) 267-9115

GEOLOGIST'S REPORT
DRILLING TIME AND SAMPLE LOG

COMPANY LARSON ENGINEERING, INC.
LEASE KIM #1-17
FIELD WILDCAT
LOCATION 1617' FNL & 586 FWL
SEC 17 TWSP 19S RGE 29W
COUNTY LANE STATE KANSAS

ELEVATIONS
KB 2856
DF
GL 2849
Measurements Are All From KB 2856

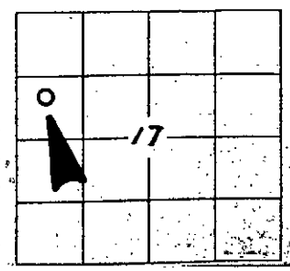
CONTRACTOR H.D. DRILLING RIG 3
SPUD 2-26-2011 COMP 3-10-2011
RTD 4680 LTD 4681
MUD UP 3684 TYPE MUD CHEMICAL

CASING
SURFACE 8 5/8" @ 261
PRODUCTION

ELECTRICAL SURVEYS
Log Tech: CDL/CNL, D.I.L & MICRO

SAMPLES SAVED FROM 3900 TO RTD
DRILLING TIME KEPT FROM 3800 TO RTD
SAMPLES EXAMINED FROM 3900 TO RTD
GEOLOGICAL SUPERVISION FROM 3900 TO RTD
GEOLOGIST ON WELL STEVE DAVIS

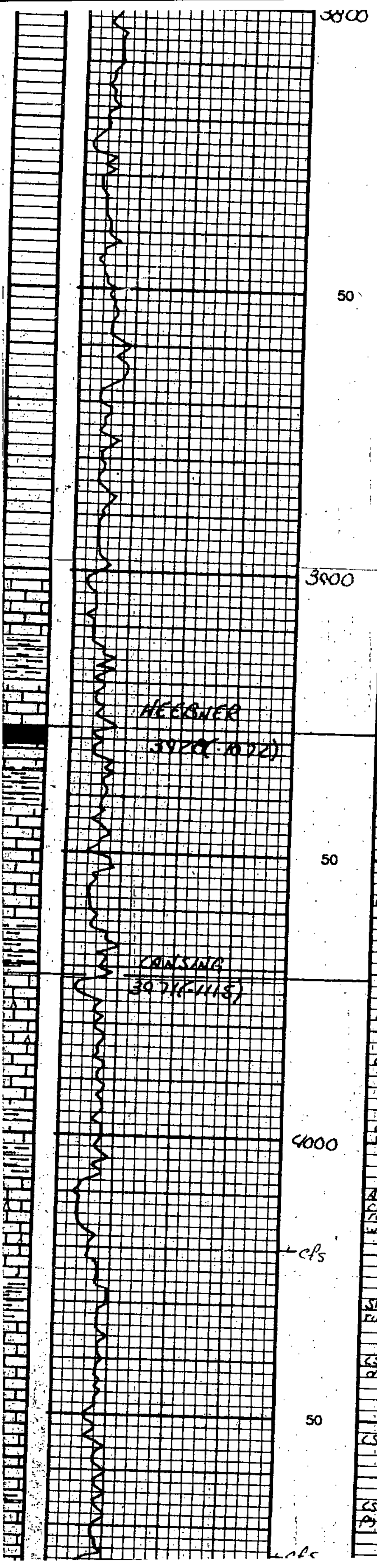
FORMATION TOPS	LOG	SAMPLES
ANHYDRITE	2180 +676	2184
B/ANHYDRITE	2199 +657	2200
HEEBNER	3927 -1071	3928
LANSING	3970 -1114	3971
MUNCIE CREEK	4158 -1302	4157
STARK	4259 -1403	4260
PAWNEE	4452 -1596	4454
CHEROKEE SH	4521 -1665	4521
MISSISSIPPI	4598 -1742	4599



LEGEND
Dolomite
Chert
Ool. Lime
Limestone
Carbish
Shale
Sandstone
Salt
Anhydrite

SCALE " = 100'

REMARKS
SAMPLE DESCRIPTION
DEPTH
DRILLING TIME
In Minutes
0 5 10 15 15
2200
ANHYDRITE
B/ANHYDRITE



Stort 10' Wet & Dry

Abot Shale gray, green & rust

Shale AA & LS gray, off white f-la silty foss chky LP Pinlap

Shale black carb

Shale brown, gray & green & Sltst

Abot Shale AA & LS crm-tan f-la chky foss Pmold NS

LS tan gray f-la f-la foss chky Pmold ø NS

Shale black gray & green

LS crm-white f-la foss ool IP chky IP Pmold ø NS

LS crm-white f-la chky silty foss ool NVø & Cht white

LS AA & Shale black green & rust

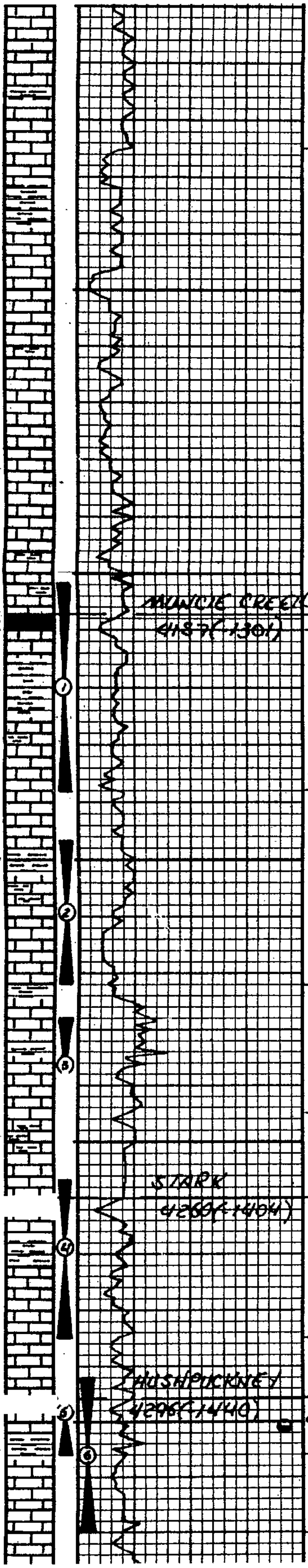
Abot Shale vari colo & LS crm-white f-la chky silty ool rare Pmold ø NS & Cht gray-white

Shale black green gray & rust

LS crm-gray f-xfxln chky dense NVø

LS tan vfxln-microxln dense

LS AA & Shale black sub carb & pyr



50

CS tan vfxln-microxln dense

CS AA & shale black sub carb & pyr

cfs

CS tan-crm fxln foss-ool chky P mold φ

Shale black, gray & green

Vis. 49 Wt. 9.0 F.l. 6.8
Chl. 1400 PH 11 CCM 5#
(3-3-11)

CS crm-off white fxln chky foss ool NVO

4100

CS tan-off white fxln chky dense

CS AA & Shale gray, black, green & rust

CS tan off white vfxln slty foss dense NVO

CS AA & shale vari colo

50

Shale black carb

cfs

Short Trip @ 4160
Survey @ 4188 2°

CS gray-brown fxln dense NVO

Shale black, gray, green & rust

DST #1 4152-4188
15-30-15-30
BLOW:
I.F. B.O.B. 2 min.
F.F. B.O.B. 1 min.
(No return I.S.I. or F.S.I.)
RECOVERY:
1,952 SW (100% W, Chl. 19,000)
I.H.P. 2050#
I.F.P. 115-481#
I.S.I.P. 903#
F.F.P. 493-657#
F.S.I.P. 906#
F.H.P. 2001# B.H.T. 126°F

CS gray-brown fmxln slty foss F.P. vgy φ & F.P. inb φ SSFO, rare sptd dk stn & dull sptd fluor, v. slt odor

cfs

CS tan-gray vfxln dense NVO & shale vari colo

4200

CS brown fxln dense NVO some org.

CS crm-tan fxln, slty ool chky IP Pool mold φ & P inb φ SSFO, N stn in dry, dull fluor, v. odor

cfs

Vis. 47 Wt. 9.1 F.l. 7.6
Chl. 2100 PH 10.5 CCM 1#
(3-4-11)

CS tan-brown vfxln ool IP dense

Pipe strap @ 4222
4.18 Long (windy)

CS gray-brown fxln chky IP ool Pool mold φ SSFO v. odor v. fluor v. odor

cfs

DST #2 4197-4222
5-15-30-60
BLOW:
I.F. 1½"
F.F. Weak surface
(No return I.S.I. or F.S.I.)
RECOVERY:
5' F.O. (100% oil)
216' O.C.W.M. (10% O 40% W 50% M)
244' SW (Chl. 20,000)
465' TOTAL FLUID
I.H.P. 2060#
I.F.P. 31-89#
I.S.I.P. 1057#
F.F.P. 93-220#
F.S.I.P. 1057#
F.H.P. 2093# B.H.T. 124°F

50

CS gray-brown fxln dense NVO & shale black carb

Shale black carb & pyr

Shale black, gray, green & rust

CS gray-tan fvfxln slty foss-ool chky IP P inb φ & P mold φ SSFO rare sptd stn & fluor, v. odor

cfs

CS tan-off white fxln slty foss some chky dense NVO

Shale black carb

@ 4245 Vis. 49 Wt. 9.3 F.l. 6.4
Chl. 2100 PH 10 CCM 1#
(3-5-11)

4300

CS brown-gray vf-crs xln P inb φ SSFO w/ gas bubb, sptd stn & fluor fnt odor

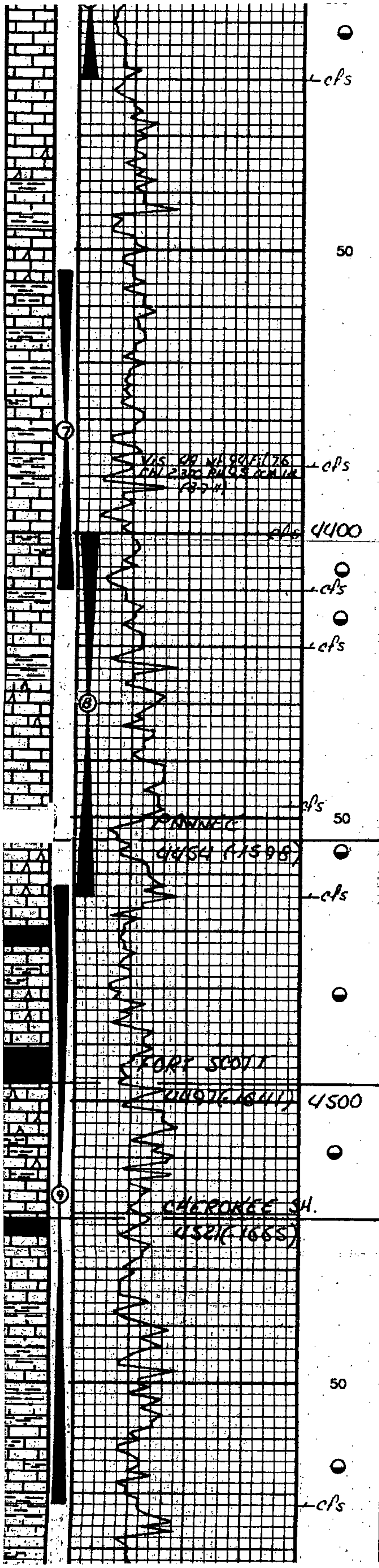
cfs

DST #3 4228-4245
5-15-15-30
BLOW:
I.F. Weak surface
F.F. Weak Surface

CS tan-gray vf-mxln dev. foss frag P inb φ & P vgy φ, SS-FSFO, sptd lt stn, dull sptd fluor fnt odor

cfs

RECOVERY: 5'M



LS tan-gray vf-m xln few foss frag P intgr φ, P vug φ, SS-FSFO sptd lt stn, dull sptd fluor fnt odor

LS gray-white f-vf xln foss-ool IP dense NVP + LS brown vf micro xln few foss frag dense NVP

LS AA + Cht gray

Shale gray, black, green & rust + LS gray-off white f xln chky NVP

LS brown-gray f xln foss-ool arg NVP & Cht gray & Shale AA w/ pyr.

Abnt sltst gray + LS gray-tan f-vf xln some ool NVP rare sptd res stn NSFO N-odor

LS brown, gray & tan vf micro xln dense some ool NVP dense

LS AA + Shale gray, black & green some silty + LS white f xln silty foss chky NVP NS

LS tan-off white f-vf xln few foss frag NVP NSFO rare sptd res stn N-odor

LS cream-white f-vf xln ool-foss IP P ool mold φ SSFO, rare sptd res stn, N-fluor, N-odor chky

LS tan-off white f xln silty foss chky P xln φ, SSFO N-stn dull fluor N-odor

Shale gray, black & green

Flood Cht orange-tan transl

LS tan-gray f-vf xln silty foss chky IP NVP

LS brown-tan vf micro xln dense NVP

Shale black carb

LS white-gray vf-f xln chky IP P xln φ SSFO rare sptd lt stn N-fluor, N-odor + Cht white opq

Shale black carb

LS gray-brown f-vf xln ool-silty ool P ool mold φ SSFO N-stn N-fluor N-odor + Cht gray (Smpl V-fine)

Shale black carb

LS gray-brown f-vf xln ool P intgr φ SSFO N stn N-fluor fnt odor + Cht gray ool & Shale gray, green, rust & black

AA + LS tan-crm vf xln dense NVP (Smpl V-fine)

Shale black carb

LS brown-crm f xln ool chky IP P ool mold φ NSFO sptd dk stn ? fnt odor

Shale black + LS gray-tan f xln silty ool & foss P mold φ chky IP NS

LS tan-gray-brown micro xln dense & Shale black carb, gray, green & rust

LS tan-gray vf-m xln few foss frag P vug φ & P intgr φ SS-FSFO sptd dk stn, sptd dull fluor fnt odor

LS gray-brown vf micro xln silty foss dense NVP

SS gray-crm vf-crs rd well sort

DST #3 4228-4245
S-15-15-30
BLOW:
I.F. Weak surface
F.F. Weak Surface
RECOVERY: 5'M
I.H.P. 2077#
I.F.P. 18-18#
I.S.I. 19#
F.F.P. 18-18#
F.S.I. 20#
F.H.P. 2048# B.H.T. 106°F

Pipe strap @ 4285
3.28 Long

DST #4 4257-4285
S-15-30-60
BLOW:
I.F. 1/8"
F.F. surface died 15 min.
RECOVERY: 5'M
I.H.P. 2103#
I.F.P. 18-19#
I.S.I. 196#
F.F.P. 19-19#
F.S.I. 774#
F.H.P. 2043# B.H.T. 111°F

Vis 51 Wt 9.3 Fil 7.2
Chl 2,100 PH 10 CCM 1#
(3-6-11) Checked @ 4306

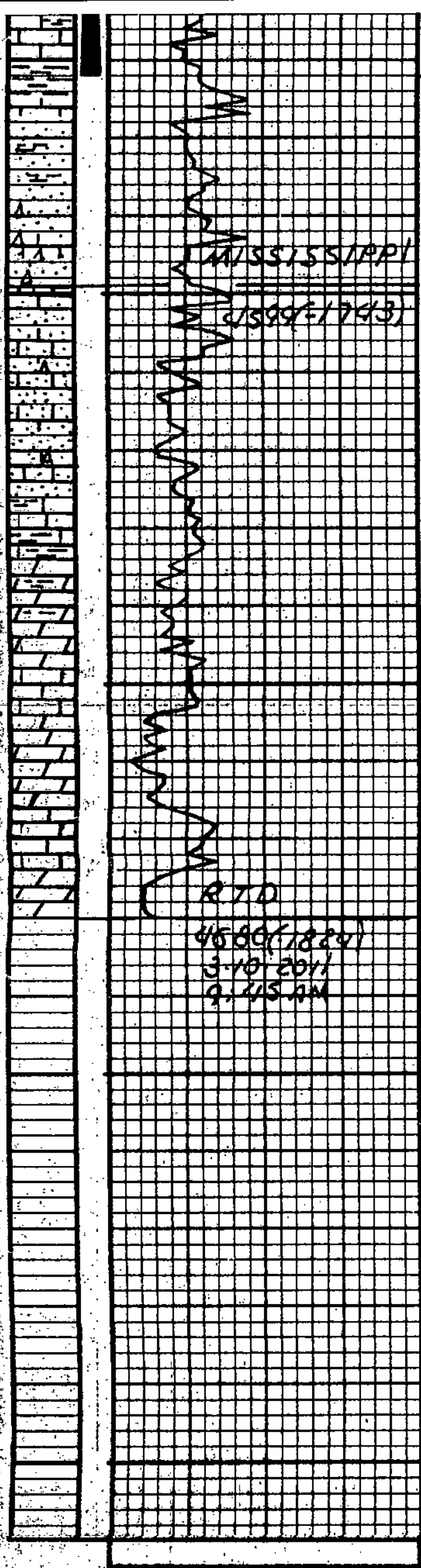
DST #5 4291-4306
S-15-15-30
BLOW:
I.F. Weak surface
F.F. No blow
RECOVERY: 5'M
I.H.P. 2119#
I.F.P. 19-79#
I.S.I.P. 176#
F.F.P. 20-19#
F.S.I.P. 564#
F.H.P. 2118# B.H.T. 106#

DST #6 4292-4320
S-15-15-30
BLOW:
I.F. Surface blow
F.F. No blow
RECOVERY: 5'M
I.H.P. 2133#
I.F.P. 21-20#
I.S.I.P. 770#
F.F.P. 21-21#
F.S.I.P. 787#
F.H.P. 2082# B.H.T. 106°F

DST #7 4354-4410
S-15-30-60
BLOW:
I.F. 1"
F.F. 8"
(No return I.S.I. or F.S.I.)
RECOVERY:
120'M w/ oil spots
I.H.P. 2165#
I.F.P. 40-49#
I.S.I.P. 518#
F.F.P. 53-83#
F.S.I.P. 551#
F.H.P. 2152#

@ 4464 Vis 53 Wt 9.3 F.I. 7.2
Chl 2100 PH 9.5 CCM 2#
(3-8-11)

DST #8 4400-4464
S-15-15-30
BLOW:
I.F. 1/8"
F.F. 1/2" throughout
RECOVERY:
70' O.C.M. (40 O 60% M)
I.H.P. 2146#
I.F.P. 39-44#



c/s

4600

50

c/s

4700

50

SAMPLE DESCRIPTION	REMARKS
sat'd dk stn, sat'd dull fluor lht odor	F.F. 1/2" throughout
	RECOVERY:
	70' O.C.M. (40%O 60%M)
LS gray-brown w/ micro xln silty foss dense NVØ	I.H.P. 2146#
	I.F.P. 39-44#
SS gray-crm vf grn rd well sort comp Pigø NSFO N-fluor N-odor & Shale gray-green	I.S.I. 649#
	F.F.P. 47-59#
	F.S.I.P. 763#
AA & LS tan-gray vfxln silty foss NVØ & Cht tan opq.	F.H.P. 2172# B.H.T. 108°F
	@4572 Vis. 50 Wt 9.3 Fil. 7.2 Chl 2,100 PH 10.5 LCM 1.5#
LS crm-off white silty sdy chky IP NVØ	(3-9-11)
	DST #9 4462-4572
	S-15-30-60
LS crm-off white sdy NVØ & SS white vf grn rd well sort comp Pigø N.S. & Cht crm-tan opq	BLOW:
	I.F. 4"
	F.F. B.O.B. 10 min
	(No return I.S.I. or F.S.I.)
	RECOVERY:
Abnt Shale black, green, gray & rust & LS crm-off white fxln silty sdy silty foss NVØ	306' G.&O.C.M.
	(10%G 30%O 60%M)
	I.H.P. 2236#
	I.F.P. 63-103#
LS AA & Dolo tan-gray fxln Pinptø N.S. & Sl Foss. calc	I.S.I.P. 1244#
	F.F.P. 111-184#
Dolo AA & LS gray-brown f-vfxln silty foss NVØ	F.S.I.P. 1237#
	F.H.P. 2153# B.H.T. 118°F
Dolo gray-brown f-vfxln dense silty foss Pinptø & P mold ø N.S.	
LS tan-gray fxln foss-ool some chky NVØ	
Dolo brown f-vfxln Pinpt ø dense N.S.	Vis 54 Wt 9.2 Fil 7.2 Chl 2,100 PH 10.5 LCM 1# (3-10-11)
	Survey @ 4680 1°

DRILLING TIME	DEPTH	SAMPLE DESCRIPTION	REMARKS

In Minutes 0 5 10 15 15

ALLIED CEMENTING CO., LLC. 038729

Federal Tax I.D.# 20-5975804

REMIT TO P.O. BOX 31
RUSSELL, KANSAS 67665

SERVICE POINT: Great Bend KS

DATE 3-11-11	SEC. 17	TWP. 19	RANGE 29	CALLED OUT	ON LOCATION	JOB START 430 am	JOB FINISH 500 am
LEASE Kim	WELL # 1-17		LOCATION Dighton KS 5w5, 5½ South			COUNTY Lane	STATE KS
OLD OR NEW (Circle one)			East into				

CONTRACTOR H D Drilling #3
TYPE OF JOB Rotary Plug
HOLE SIZE 7 7/8 T.D. 2230
CASING SIZE 8 5/8 DEPTH
TUBING SIZE DEPTH
DRILL PIPE 4½ DEPTH 2230
TOOL DEPTH
PRES. MAX MINIMUM
MEAS. LINE SHOE JOINT
CEMENT LEFT IN CSG.
PERFS.
DISPLACEMENT

OWNER Larson Engineering

CEMENT

AMOUNT ORDERED 280 sx 60/40 4% Gel ¼# flo

COMMON	168	@ 16.25	2730.00
POZMIX	112	@ 8.00	896.00
GEL	10	@ 21.25	212.50
CHLORIDE		@	
ASC		@	
		@	
flo Seal	75#	@ 2.70	202.50
		@	
		@	
		@	
		@	
		@	
		@	
HANDLING	293	@ 2.25	659.25
MILEAGE	293 x 30 x .11		966.90
		TOTAL	5.667.15

EQUIPMENT

PUMP TRUCK CEMENTER Bobby Roller
366 HELPER Bill. B
BULK TRUCK
341 DRIVER Lewis W
BULK TRUCK
DRIVER

REMARKS:

Rig up Drill hole with rig mud
1st plug at 2230 ft mix 50 sx
2nd plug at 1400 ft mix 80 sx
3rd plug at 700 ft mix 50 sx
4th plug at 290 ft mix 50 sx
5th plug at 60 ft mix 20 sx
Rathole mix 30 sx
Rig down

SERVICE

DEPTH OF JOB 2230
PUMP TRUCK CHARGE 1250.00
EXTRA FOOTAGE @
MILEAGE 60 @ 7.00 420.00
MANIFOLD @
Light Truck 60 @ 4.00 240.00
@
TOTAL 1910.00

CHARGE TO: Larson Engineering
STREET
CITY STATE ZIP

PLUG & FLOAT EQUIPMENT

@
@
@
@
@
TOTAL

To Allied Cementing Co., LLC.
You are hereby requested to rent cementing equipment and furnish cementer and helper(s) to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read and understand the "GENERAL TERMS AND CONDITIONS" listed on the reverse side.

SALES TAX (If Any)
TOTAL CHARGES
DISCOUNT IF PAID IN 30 DAYS

PRINTED NAME LEWAYNE TRESNER

SIGNATURE LeWayne Tresner

ALLIED CEMENTING CO., LLC. 040884

Federal Tax I.D.# 20-5975804

REMIT TO P.O. BOX 31
RUSSELL, KANSAS 67665

SERVICE POINT: Oakley, KS

DATE	SEC.	TWP.	RANGE	CALLED OUT	ON LOCATION	JOB START	JOB FINISH
2-26-11	17	19	29		9:00 pm	11:30 pm	12:00 am
LEASE Kim	WELL # 1-17		LOCATION Dighton SW-5 1/2 S			COUNTY Lane	STATE KS
OLD OR (NEW) (Circle one)			e w				

CONTRACTOR M-O #3
TYPE OF JOB Surface
HOLE SIZE 12 1/4 T.D. 265'
CASING SIZE 8 5/8 DEPTH 265'
TUBING SIZE DEPTH
DRILL PIPE DEPTH
TOOL DEPTH
PRES. MAX MINIMUM
MEAS. LINE SHOE JOINT
CEMENT LEFT IN CSG. 15'
PERFS.
DISPLACEMENT 15.9

OWNER

CEMENT
AMOUNT ORDERED 175 sks Com 3% cc 2% gel

COMMON	175	@ 15.45	2703.75
POZMIX		@	
GEL	3	@ 20.80	62.40
CHLORIDE	6	@ 58.20	349.20
ASC		@	
		@	
		@	
		@	
		@	
		@	
		@	
		@	
		@	
HANDLING	184	@ 2.40	441.60
MILEAGE	.10 x sk x mile		1288.00
		TOTAL	4844.95

EQUIPMENT

PUMP TRUCK CEMENTER Fuzzy
423 HELPER Alan
BULK TRUCK
404 DRIVER LaRue
BULK TRUCK
DRIVER

REMARKS:

cement did circulate
Approx 7 BBLS

Job complete @ 12:00 am

SERVICE

DEPTH OF JOB 265'
PUMP TRUCK CHARGE 1018.00
EXTRA FOOTAGE @
MILEAGE 70 @ 7.00 490.00
MANIFOLD @
@
@
TOTAL 1508.00

CHARGE TO: Larson Engineering
STREET
CITY STATE ZIP

PLUG & FLOAT EQUIPMENT

@
@
@
@
@
TOTAL

SALES TAX (If Any)
TOTAL CHARGES
DISCOUNT IF PAID IN 30 DAYS

To Allied Cementing Co., LLC.
You are hereby requested to rent cementing equipment and furnish cementer and helper(s) to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read and understand the "GENERAL TERMS AND CONDITIONS" listed on the reverse side.

PRINTED NAME LEWAYNE TRESNER

SIGNATURE LeWayne Tresner

Conservation Division
Finney State Office Building
130 S. Market, Rm. 2078
Wichita, KS 67202-3802

Kansas
Corporation Commission

Phone: 316-337-6200
Fax: 316-337-6211
http://kcc.ks.gov/

June 23, 2011

Thomas Larson
Larson Engineering, Inc. dba Larson Operating Company
562 W STATE RD 4
OLMITZ, KS 67564-8561

Re: ACO1
API 15-101-22279-00-00
Kim 1-17
NW/4 Sec.17-19S-29W
Lane County, Kansas

Dear Production Department:

We are herewith requesting that the Well Completion Form ACO-1 and attached information for the subject well be held confidential for a period of two years.

Should you have any questions or need additional information regarding subject well, please contact our office.

Respectfully,
Thomas Larson